

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Report on the Future of the Universal Service Fund	)	WC Docket No. 21-476
	)	
	)	

**COMMENTS OF THE RURAL WIRELESS ASSOCIATION, INC.**

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## **Summary**

The Rural Wireless Association, Inc. (“RWA”) supports much needed reform of the FCC’s Universal Service Fund (“USF”), which is no longer sustainable under its current framework. With the passage of the Infrastructure Act, enormous amounts of funds will be filtered to States to approve broadband deployment and affordability projects. None of these funds however will be used to maintain and operate the infrastructure that is built. Congress, as part of the Infrastructure Act, required the Commission to report on how it can achieve universal service goals. As part of that report, RWA recommends that the Commission acknowledge that USF needs to be reformed in order to sustain the universal service goals championed by both the Communications Act and the Infrastructure Act.

The Commission should consider three actions to ensure its universal service goals are met now and in the future. First, the FCC should transition high-cost support for fixed broadband to ongoing support to maintain the networks that are deployed after the Infrastructure Act and current programs conclude. By redirecting these high cost support funds, such as RDOF Phase II funds, the FCC will be able to keep existing rural networks afloat and rural consumers connected. Second, the FCC should develop a model-based support mechanism to enable and sustain 5G mobile networks to replace the reverse auction framework that has been proven to result in unsecure and subpar broadband networks being constructed. Third, the Commission should immediately move forward with reforming its USF contribution methodology to include broadband revenue as basing the contribution factor on a percentage of telecommunications carriers’ interstate end-user revenues has become a losing proposition given the explosion of broadband adoption.

In addition, RWA suggests that Congress consider creative methods for funding infrastructure deployment and ongoing support of those projects based on commercial transactions taking place over broadband connections.

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**COMMENTS OF RURAL WIRELESS ASSOCIATION, INC.**

The Rural Wireless Association (“RWA”)<sup>1</sup> submits these comments in response to the Federal Communications Commission’s (“FCC” or “Commission”) Notice of Inquiry<sup>2</sup> seeking comment on issues related to the future of the Universal Service Fund (“USF” or “Fund”) in light of the broadband investments in the Infrastructure Investment and Jobs Act.<sup>3</sup> The Act truly is transformative as it will result in the expenditure of \$65 billion in support of our nation’s universal service goals, which is roughly as much as the Fund spent over the past eight years. It does not mean the FCC’s job is done, however; far from it.

Under the Infrastructure Act, the Commission is tasked with preparing a report on ways it can “improve its effectiveness in achieving the universal service goals for broadband.”<sup>4</sup> For purposes of the Report, the FCC proposes to define the Commission’s universal goals as “universal deployment, affordability, adoption, availability, and equitable access to broadband throughout the United States.”<sup>5</sup> The vast majority of the spending required by the Act focuses on

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<sup>1</sup> RWA is a 501(c)(6) trade association dedicated to promoting wireless opportunities for rural telecommunications and broadband companies who serve consumers who, reside, work, or travel in rural America. RWA’s members are small businesses serving or seeking to serve secondary, tertiary, and rural markets.

<sup>2</sup> See generally *Report on the Future of the Universal Service Fund*, WC Docket No. 21-476, Notice of Inquiry, FCC 21-127 (Dec. 21, 2021) (“NOI”).

<sup>3</sup> Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021) (“Infrastructure Act” or “Act”).

<sup>4</sup> NOI at para. 17.

<sup>5</sup> *Id.* at para 18.

parts of two of these goals—residential broadband deployment and affordability. Nothing in the Infrastructure Act addresses the rest of those goals. Nor does the Act impact other important parts of USF, such as funding for education, mobility, and telehealth.

With respect to the two goals that are most significantly impacted by the Infrastructure Act, the Commission acknowledges in the NOI that, while the Infrastructure Act funds the buildout of broadband, it does not provide for ongoing operational support and maintenance or additional capital expenses that may be necessary in the future.<sup>6</sup> When it issues its report to Congress later this year, the Commission should recommend transitioning its current high-cost support to focus on the sustainability of fixed and mobile broadband rather than encouraging additional broadband deployment. . In most high-cost areas, broadband networks will not be sustainable after initial deployment because available revenues will not cover the costs of ongoing operations and maintenance.

The Infrastructure Act does not address mobile broadband in high-cost areas that are unserved with mobile broadband or would be unserved in the absence of support for mobility. This leaves a big gap between the funding provided by current high-cost USF support and the funding needed for achievement of the Commission’s stated universal service goals. The Commission, therefore, must continue with the planned 5G Rural Fund. As it does so, however, the FCC should follow the example of the Infrastructure Act and use a distribution mechanism that is more effective and better serves the public interest than a reverse auction.

The Commission also should report to Congress that the funding mechanism for USF must be reformed to provide stable, predictable, and sufficient support for its ongoing and revised universal service goals and responsibilities. The Commission has an incredible

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<sup>6</sup> *Id.* at para. 32.

opportunity to reform its USF contribution methodology both in the short term, and in the long term with the help of Congress. In the short term, the FCC should act immediately to expand the contribution base to include broadband providers. In the long term, the FCC could work with Congress to pass legislation that could continue to support broadband infrastructure well past the deployment phase of the Infrastructure Act.

In these comments, RWA explains how the key to making adjustments to the USF and fulfilling the Commission's universal service goals and responsibilities lies in the following three actions:

1. Transition high-cost support for fixed broadband to ongoing support to maintain networks after the Infrastructure Act and current programs conclude;
2. Develop model-based support to enable and sustain 5G mobile networks that can be used for precision agriculture and the internet of things (IOT) where such networks would not be sustainable without support; and
3. Reform USF contribution methodology to establish sufficient, predictable, and sustainable support for all universal service goals now and in the future.

#### **I. Transition Funding for Fixed Broadband to Support Long-Term Sustainability in High-Cost Areas**

As discussed above, in many instances, these newly deployed broadband networks funded by the Infrastructure Act will need additional or ongoing support that would fit within the FCC's existing high-cost program. If the FCC were to retool the USF to support ongoing operations and maintenance of deployed networks rather than the geographic expansion of broadband coverage, then it could ensure that the funding currently relied on for construction of networks under the Infrastructure Act and other federal and state programs could ultimately be replaced in high cost areas with high-cost fund support. With respect to the Rural Digital

Opportunity Fund (“RDOF”) Fund Phase II, the FCC should repurpose those funds for the maintenance and operation of high cost networks.

The FCC should focus on how the USF should be transformed in the coming years to support the ongoing operation and maintenance of the fixed and mobile wireless broadband networks that will be built with Infrastructure Act funding, as well as those that have been and are being built with existing USF and other support. The Infrastructure Act’s deployment initiatives are focused on bringing broadband to areas that currently are unserved. By definition, these areas do not offer a sustainable business case for broadband networks because there are too few people or paying customers to keep the network operational. Consequently, after deployment and the initial funding period, these networks with low customer revenue will need to be subsidized by the USF. It would be a catastrophe to spend \$65 billion on deployment and adoption of broadband and then not be able to keep such networks afloat. While NTIA, USDA, and states are now well positioned to fund the deployment of broadband networks, possibly to the point of universal availability, the FCC is uniquely capable of directing USF support and oversight to fund ongoing support needed for operations of deployed broadband networks in high cost areas.

The need for ongoing support to maintain networks in high-cost areas also exists today. As a reminder, RWA’s members who receive legacy high cost support under the old identical support rule (with such support now ratcheted down to 60% of its original amount) are now being tasked with putting all of that support toward 5G services by the end of 2023.<sup>7</sup> Yet, they still need to support their underlying 4G networks and in some instances legacy 3G networks. These rural carriers do not have funding to keep both their existing networks operational and

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<sup>7</sup> *Establishing a 5G Fund for Rural America*, Report and Order, GN Docket No. 20-32, rel. Oct. 29, 2020, para. 124 (“5G Rural Fund Order”).



build 5G networks and are going to have difficulty meeting the requirements imposed on them to spend their legacy support only on 5G networks.

## **II. Develop Model-Based Support for 5G Mobile Networks in High-Cost Areas**

With respect to the existing USF, there is a critical gap preventing achievement of the Commission's universal services goals—the lack of funding of rural mobile networks and hybrid fixed/mobile networks. Although the FCC established the 5G Rural Fund to support such networks<sup>8</sup>, this support has not materialized. Under the *5G Rural Fund Order*, mobile carriers receiving legacy support must use all of their support for 5G networks beginning in 2023 – less than a year away. The promised 5G Rural Fund reverse auction has not materialized to provide the necessary funding for this build out. Under the FCC's 5G Rural Fund program, the reverse auction for the \$8 billion in 5G funding cannot take place until the FCC has established maps of where the coverage is needed. Those maps and the accompanying process to challenge those maps are at least a year away. The \$9 billion (over ten years) currently set aside for the 5G Rural Fund should be used to operate and maintain subsidized 4G LTE networks that are being upgraded to 5G until such time that the FCC establishes a program for 5G.

The FCC should consider scrapping its 5G Rural Fund reverse auction in favor of a cost-based model that would fund 5G build out and provide for ongoing support for operation and maintenance of existing networks while the transition to 5G occurs. Reverse auctions have resulted in a race to the bottom. The Mobility Fund Phase I -- the first reverse auction – resulted in participants bidding low amounts and then using Huawei and ZTE equipment that was subsidized by the Chinese government. That equipment is now being replaced at a substantial cost to the American taxpayer to ensure that our broadband networks are safe and secure. The

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<sup>8</sup> See generally, *5G Rural Fund Order*.

recent RDOF reverse auction also resulted in problems that are still not fully resolved when bidders bid so low that it became clear they could not deliver the services at the promised speeds. The FCC is still sorting that mess out.

Instead of conducting a reverse auction to allocate these funds, the FCC should develop model-based support based on the cost of maintaining and supporting Radio Access Networks (RAN) and their supporting structures with backhaul and a portion of the core network factored into the model. The model could factor in terrain, low density populations and some of the other factors the FCC has identified as relevant for purposes of the 5G Rural Fund reverse auction. In a recent White Paper commissioned by the Competitive Carriers Association (“CCA”), CostQuest Associates determined that it would cost \$36 billion to build out 5G across unserved areas in the U.S.<sup>9</sup> The Commission should build on the Infrastructure Act precedent of using an RFP-like process with competitive scoring criteria to allocate this funding for 5G deployment. Then, after that program ends, the FCC could transition to a smaller fund to support the ongoing operation and maintenance of 5G networks in rural America. In February of 2016, CostQuest did an analysis for United States Cellular on the need for ongoing support to operate rural mobile networks.<sup>10</sup> RWA requests that the FCC build on that analysis to develop a cost model that takes into consideration costs associated with operating and maintaining mobile networks in high cost areas to develop actual costs rather than rely on a reverse auction or legacy support not based on costs.

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<sup>9</sup> Competitive Carriers Association, “Ubiquitous Mobile Connectivity: A Plan for Nationwide 5G,” GN Docket No. 20-32 (Nov. 23, 2021), <https://ecfsapi.fcc.gov/file/1123087072770/CCA%20White%20Paper%20-%20Ubiquitous%20Mobile%20Connectivity-A%20Plan%20for%20Nationwide%205G.pdf>.

<sup>10</sup> See U.S. Cellular Ex Parte, “Ongoing Support for Operations & Maintenance of Rural Mobile Networks,” WC Docket No. 10-90 (Feb. 22, 2016), <https://ecfsapi.fcc.gov/file/60001518777.pdf>.

### **III. Reform USF Contribution Methodology to Provide Sufficient, Predictable, and Sustainable Support for the Commission’s Universal Service Goals**

The NOI seeks comment on “further actions” the Commission can take “to improve the ability of the Commission to achieve the universal service goals for broadband” that are applicable to each of the USF programs or some other aspect of the Fund.<sup>11</sup> When the 1996 Act was signed into law more than 26 years ago, voice telecommunications ruled the day and was the primary service supported by USF, and revenues from interstate telecommunications were the primary assessable revenue for telecommunications carriers so it made sense to base the contribution factor on these revenues. In 1996, the internet and broadband were novel concepts that consumers had not yet adopted pervasively, yet they are now the primary services supported by USF. At the same time, telecommunications revenues began decreasing and the contribution factor began rising to ensure the fund remained sustainable. The contribution side of the USF equation has been left untouched by the Commission since its inception. Basing the contribution factor today on a percentage of telecommunications carriers’ interstate end-user revenues is unquestionably a losing proposition.

Initially, the USF programs established by the FCC supported voice services.<sup>12</sup> In 2011, the Commission recognized that fixed and mobile broadband had become “crucial to our nation’s economic growth, global competitiveness, and civic life,”<sup>13</sup> and as such, comprehensively

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<sup>11</sup> NOI at para. 45.

<sup>12</sup> *Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd 8776, 8790, para. 22 (1997) (“First Report and Order”) (establishing as eligible telecommunications services “voice grade access to the public switched network, with the ability to place and receive calls; Dual Tone Multifrequency (DTMF) signaling or its functional equivalent; single party service; access to emergency services, including in some instances, access to 911 and enhanced 911 (E911) services; access to operator services; access to interexchange services; access to directory assistance; and toll limitation services for qualifying low-income consumers.”); *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17667, para. 2 (2011) (“2011 Connect America Fund Order”) (“For decades, the Commission and the states have administered a complex system of explicit and implicit subsidies to support voice connectivity to our most expensive to serve, most rural, and insular communities.”).

<sup>13</sup> 2011 *Connect America Fund Order*, at para. 3.

transformed the High-Cost programs “from supporting just voice service to supporting voice and broadband, both fixed and mobile, through IP networks.”<sup>14</sup> Similarly, other reforms followed in the other universal service programs (e.g., the Healthcare Connect Fund to provide support for broadband networks for rural healthcare providers;<sup>15</sup> the E-Rate program to increase its emphasis on supporting high-speed broadband and Wi-Fi;<sup>16</sup> and the Lifeline program to provide support for broadband for low-income consumers).<sup>17</sup> Moreover, the Commission has increased the benchmark for “advanced telecommunications capability”—or broadband—under section 706 of Telecommunications Act from 200 kbps/200 kbps in 1997 to 4/1 Mbps in 2010 and to 25/3 Mbps in 2015.<sup>18</sup> The Commission has also progressively increased the minimum required speed of broadband service in many of its High-Cost programs.<sup>19</sup> It is critical that the universal service programs established by the Commission receive enough funding to continue to evolve in light of the Infrastructure Act, without “[undermining] the congressional mandate to achieve the universal service goals for broadband.”<sup>20</sup> RWA acknowledges that this means increasing the

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<sup>14</sup> *Id.* at para. 10.

<sup>15</sup> *Rural Healthcare Support Mechanism*, Report and Order, 27 FCC Rcd 16678, 16681, para. 3 (2012) (“*HCF Order*”).

<sup>16</sup> *Modernizing the E-Rate Program for Schools and Libraries*, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC 8870, 8873, para. 5 (2014).

<sup>17</sup> See *Lifeline and Link Up Reform and Modernization*, Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656 at 6662-3, para. 12 (2012) (“*2012 Lifeline Order*”); *Lifeline and Link Up Reform and Modernization*, Third Report and Order, Further Report and Order, Order on Reconsideration, 31 FCC Rcd 3962, 3964, para. 5 (2016) (“*2016 Lifeline Order*”).

<sup>18</sup> See *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375, 1378, para. 3 (2015); *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act; A National Broadband Plan for our Future*, Sixth Broadband Deployment Report, 25 FCC Rcd 9556, 9563, para. 11 (2010).

<sup>19</sup> See, e.g., *Connect America Fund et al.*, Report and Order, 29 FCC Rcd 15644 (2014); *Rural Digital Opportunity Fund*, Report and Order, 35 FCC Rcd 686 (2020) (“*RDOF Order*”).

<sup>20</sup> Infrastructure Act, Div. F, Tit. I, § 60104(c)(3)(A).

amount available for USF and that USF contribution reform is absolutely necessary for sufficient, predictable, and sustainable support that meets the Commission's goals.

As broadband adoption and data speeds increased, an explosion of innovation followed that spurred consumers to use more data and demand higher speeds and lower latency. Copper and coaxial cable were replaced with fiber and on the wireless side demand for spectrum to keep pace with demanding speeds on evolving networks (2G, 3G, 4G LTE and now 5G) transformed telecommunications connectivity to broadband connectivity and an Internet-Protocol technology. Yet, the Commission never changed the contribution side of the formula to keep the Fund sustainable. So while broadband now receives universal support, broadband revenues are not used in the calculation for determining how much support should be contributed into the Fund. Initially, this was because broadband was a nascent service and one that the Commission recognized as disruptive and transformative and did not want to burden with a contribution requirement. Today, broadband is a burgeoning service that has easily surpassed and in many instances replaced voice telecommunication services.<sup>21</sup> Carol Matthey, a USF expert, concluded in a September 2021 report that in order to significantly reduce the contribution factor the Fund needs to be reformed to include broadband internet access revenues.<sup>22</sup> Ms. Matthey estimates that such an approach could lower the contribution factor to less than four percent.<sup>23</sup> RWA and the other members of the USForward Coalition recently filed a letter at the FCC supporting adding

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<sup>21</sup> Matthey, Carol, "USForward: FCC Must Reform USF Contributions Now – An Analysis of the Options," Matthey Consulting LLC (Sept. 2021), <https://www.shlb.org/policy/research/USForward> ("Meanwhile, revenues not subject to assessment (such as broadband internet access) have grown dramatically, more than doubling in the last decade, from \$173 billion to \$361 billion. It is apparent that service providers that bundle voice service with broadband internet access service are allocating only a small portion of the monthly rate to the assessable service (voice telephony)").

<sup>22</sup> *Id.*

<sup>23</sup> *Id.*

broadband internet access revenue to the USF contribution base, which would go a long way to solve the immediate and urgent problem facing USF.<sup>24</sup>

In the long run, additional USF contribution reform will be needed. Today, and in the future, virtually every aspect of our lives depends on broadband. Our society is now a digital society and we are in a transformative state that will continue to evolve. Commerce and the infrastructure that supports it is reliant on broadband and the networks that carry our data everywhere at anytime. The commerce that takes place over broadband is the currency that could, and logically should, pay for and continue to support all of the Commission's universal service goals. The key to future funding of USF will be measuring the commercial transactions that take place over the broadband networks. The transactions that take place are in the billions and billions and grow annually. They take place using broadband over websites, on mobile phones and tablets using apps, at gas stations using debit and credit cards, and at the point of sale at every brick and mortar store, whether we are ordering an Uber, shopping online at Amazon or Walmart, ordering streaming video services, sending money through Venmo to friends and family, or booking hotels and flights.

Everyday consumers and businesses are conducting transactions over broadband connections. A study should be conducted to determine how many of these transactions take place and a determination made on the exponential growth of the number of commercial transactions using broadband. No doubt these transactions proved to be a huge convenience for everyone during the pandemic and exponentially grew during the lockdowns. Groceries and

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<sup>24</sup> Schools, Health & Libraries Broadband (SHLB) Coalition, Incompas, NTCA – The Rural Broadband Association, et al. Ex Parte, “Repairing the FCC’s Universal Service Fund Contribution Mechanism,” WC Docket No. 06-122 (Feb. 14, 2022), <https://ecfsapi.fcc.gov/file/102141954517172/USF%20Call%20to%20Action%20Letter%20with%20Signatories%20Feb14%202022.pdf>.

food delivery services in 2020 and 2021 outpaced anything seen before. Using broadband for commercial transactions is a convenient way to avoid trips to brick and mortar stores, banks, travel agents, post offices, etc. and has revolutionized the way consumers shop for goods and services and businesses conduct commercial transactions. By RWA's count, if the Commission were to require a small one cent convenience fee to be charged for every commercial transaction that took place over broadband, the FCC could easily support the universal service fund. One hundred trillion commercial transactions would result in convenience fees totaling \$1 trillion dollars at a penny per transaction. Not only could this pay for ongoing broadband support in rural high cost areas, it could also fund other universal service programs with funds leftover to fund other non-broadband infrastructure projects. The tiny per transaction convenience fee also has the added bonus of putting the cost on the "cost causer" -- the cost causer being the person or business that initiates the transaction (i.e. the purchase of the goods or services using broadband). The convenience fee could easily be collected at the point of the transaction by the seller who would then be responsible for remitting the penny for each transaction to the U.S. Treasury.

Let's face it -- a penny a transaction is nothing compared to the cost of the goods or services being purchased. Under this proposal, a \$0.99 iTunes purchase would have a penny convenience fee attached which would make the cost \$1.00 instead of \$0.99. Also, because the transaction is being done using a device connected to a broadband connection, it is allowing the purchaser the convenience of being able to conduct the transaction anytime, anywhere. There is no getting in a car and driving to a store, no paying the cost of a postage stamp to mail a bill<sup>25</sup>, no waiting for a brick and mortar store to be open for business or any of the constraints of time and place put on transactions that do not use a broadband connection.

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<sup>25</sup> RWA notes that a first class postage stamp is \$0.58 which equates to 58 transactions under RWA's proposal.

RWA acknowledges that its broadband convenience proposal requires further study and will require congressional legislation to enact along with numerous supporting studies related to the types of commercial transactions to be included, as well as the assessment of a convenience fee as a potential tax rather than as a convenience fee, but encourages the FCC to include such a proposal to Congress in its Report so it can be studied and vetted. For all we know, it could become a way to pay for all kinds of infrastructure reform, pay down the national debt or even reduce other forms of taxation.

RWA looks forward to working with the Commission as it develops its Report to Congress and its broader based USF Reform initiatives.

Respectfully submitted,

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By: */s/ Carri Bennet*

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